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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,841	09/26/2003	David S. Hall	VELO-1-1001	1325

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EXAMINER	
LAO, LUN S	

ART UNIT	PAPER NUMBER
2615	

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09/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/672,841	HALL ET AL.	
	Examiner	Art Unit	
	LUN-SEE LAO	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,6-11,13-22,24-29,39-45 and 73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 4, 6-11, 13-22, 24-29, 39-45 and 73* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. This action is in response to amendment filed on 06-05. Claims 1, 16, 25, 26, and 39 have been amended and claims 2, 3, 5 12, 23, 30-38 and 46-72 have been canceled and adds new Claim 73 has been added. Claims 1, 4, 6-11, 13-22, 24-29, 39-45 and 73 are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06-05-2008 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 9-11, 13-22, 24-26, 39-45 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Al-Ali et al (US PAT. 6,584,204) in view of Emoto(US PAT. 5,572,443).

Consider claim 1, Al-Ai teaches a subwoofer speaker apparatus comprising:

a subwoofer speaker housing comprising (see fig.1):

at least one subwoofer speaker (22); but Al-Ai does not explicitly teach the processor which is included in the housing and to generate a video signal based on the sound signal; and a video output port configured to output the generated video signal.

However, Al-Ai teaches a subwoofer speaker housing and Al-Ai does not limit the processor locating in the subwoofer speaker housing or the processor locating out the subwoofer speaker housing only.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the loudspeaker system taught by Al-Ai could have the processor locating in the subwoofer speaker housing as claimed to provided protecting the processor and saving space.

On the other hand, Emoto teaches to generate a video signal based on the sound signal (see fig.3); and a video output port (see fig.2 (16) reads the detachable cable because the detachable cable needs port to be connected) configured to output the generated video signal (see col. 12 line 40-col. 13 line 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the teaching of Emoto into Al-Ai could have generated a video signal based on the sound signal as claimed to provide the acoustic characteristic

correction device could have been more convenient for the user to adjust the audio output signal.

Al-Ai as modified by Emoto teaches a processor (see fig.1 (54) coupled to the at least one subwoofer speaker, the processor being configured to receive a first sound signal from an external source(see col. 3 line 28-60) and generate a video signal based on the sound signal; and a video output port configured to output the generated video signal, wherein the processor is further configured to receive a second sound signal from a second external source, process the second sound signal based on only a plurality of adjustable subwoofer parameters, and output the processed second sound signal to the at least one subwoofer speaker, wherein the at least one subwoofer speaker is only included in the speaker housing(see fig.1 and col. 3 line 29-col. 4 line 67 and col. 6 line 27-col. 7 line 57).

Consider claim 4 Al-Ali teaches that the external source is a microphone (Al-Ali, see fig.1 (50)).

Consider claims 9-11 Al-Ali teaches the apparatus wherein the processor is further configured to generate a test sound signal (see fig.1 and col. 18 line 35-40); and wherein the housing further comprises a port configured to output the test sound signal (see col. 18 line 35-40); and wherein the processor further receives changes to one of the first plurality of parameters(see fig.1 and col. 3 line 29-col. 4 line 67 and col. 6 line 27-col. 7 line 57).

Claims 17-18, they are essentially similar to claims 9-10 and are rejected for the reason stated above apropos to claims 9-10.

Consider claims 13-15 Al-Ai teaches the apparatus wherein the subwoofer speaker housing further comprises volume controls configured to control output of the at least one subwoofer speaker(see col. 8 line 4-37), and wherein the subwoofer speaker housing further comprises an indicator light coupled to the processor inherently (such as, power led in the loudspeaker system and see fig.1 and col. 3 line 29-60), and wherein the subwoofer speaker housing further comprises at least one amplifier (44) coupled to the at least one subwoofer speaker (see col. 3 line 29-60).

Consider claim 16 Al-Ai teaches a sound system including a receiver, the sound system comprising (see fig.1):

a microphone(50);

a control device(54); and

a subwoofer speaker housing comprising (se fig.1):

at least one subwoofer speaker(22); and but Al-Ai does not explicitly teach a display, and the processor which is included in the housing and to generate a video signal based on the second sound signal, and to send the generated video signal to the display, wherein the display presents the received video signal.

However, Al-Ai teaches a subwoofer speaker housing and Al-Ai does not limit the processor locating in the subwoofer speaker housing or the processor locating out the subwoofer speaker housing only.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the loudspeaker system taught by Al-Ai could have the

processor locating in the subwoofer speaker housing as claimed to provided protecting the processor and saving space.

On the other hand, Emoto teaches a display (see fig. 2 (40)) and to generate a video signal based on the second sound signal, and to send the generated video signal to the display, wherein the display presents the received video signal (see figs. 2-3 and see col. 12 line 40-col. 13 line 41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the teaching of Emoto into Al-Ai could have generated a video signal based on the sound signal as claimed to provide the acoustic characteristic correction device could have been more convenient for the user to adjust the audio output signal.

Al-Ai as modified by Emoto teaches a processor (see fig.1 (54)) coupled to the at least one subwoofer speaker(22), the processor configured to receive a first sound signal from the receiver, a second sound signal received by the microphone, and a control signal generated by the control device, to process the first sound signal based on only a plurality of subwoofer parameters and output the processed sound signal to the at least one subwoofer speaker, to generate a video signal based on the second sound signal, and to send the generated video signal to the display, wherein the display presents the received video signal, wherein the at least one subwoofer speaker is only included in the speaker housing(see fig.1 and col. 3 line 29-col. 4 line 67 and col. 6 line 27-col. 7 line 57).

Consider claim 19 Al-Ai as modified by Emoto teaches the system, wherein the generated a video signal includes a graphical user interface, the graphical user interface includes a frequency response graph of the sound signal received by the microphone (in Emoto, see fig. 3 and see col. 13 line 41-col. 14 line 32).

Consider claim 20, Al-Ai as modified by Emoto teaches the system, wherein the graphical user interface further includes an eight band parametric equalizer limited to subwoofer frequency bands (Emote, see fig.3 (+10 to –10) and see col. 13 line 41-col. 14 line 32).

Consider claim 21, Al-Ai as modified by Emoto teaches that the graphical user interface further includes a parameters section configured to allow a user to set at least a portion of the plurality of parameters using the control device (Emoto, see fig.3 and see col. 13 line 41-col. 14 line 32); and the portion of the plurality of parameters includes two or more of low pass crossover frequency, low pass crossover slope, subsonic frequency, subsonic slope, phase and polarity (Al-Ali, see col. 7 line 59-col. 8 line 67).

Consider claim 22, Al-Ai teaches the portion of the plurality of parameters includes two or more of low pass crossover frequency, low pass crossover slope, subsonic frequency, subsonic slope, phase and polarity (see col. 7 line 59-col. 8 line 67).

Consider claim 24 and 25 Al-Ai as modified by Emoto teaches the system wherein the housing further comprises a port mounted on the housing (Emoto, (see fig.2 (16) reads the detachable cable because the detachable cable needs port to be connected), the port configured to receive the generated video signal from the processor (see fig.2 (42));

and the system, wherein the housing further comprises a port (Emoto, see fig.2 (18, 20) reads on the microphone input terminal and source input terminal) configured to receive sound signals from the processor (Emoto, see fig.2 and see col. 13 line 41-col. 14 line 32).

Consider claim 26, Al-Ai teaches the system wherein the housing further comprises a volume control configured to control output of the at least one subwoofer speaker(see fig.1 and col. 7 line 59-col. 8 line 67 and discussion above in claim 16).

Consider claim 39, Al-Ai teaches a method comprising:

receiving a first sound signal at a subwoofer speaker unit from a source external to the subwoofer speaker unit(see fig.1); processing the first sound signal based on only a plurality of adjustable subwoofer parameters; outputting the processed first sound signal to at least one subwoofer speaker included in the subwoofer speaker unit; receiving at a processor (54) included in the subwoofer speaker unit a second sound signal generated by a microphone (50); wherein the at least one subwoofer speaker is only included in the subwoofer speaker unit (see fig.1 and col. 3 line 29-col. 4 line 67 and col. 6 line 27-col. 7 line 57); but Al-Ai does not explicitly teach generating a video signal by the processor included in the subwoofer speaker unit based on the second sound signal; and sending the generated video signal to a display coupled to the processor.

However, Emoto teaches generating a video signal by the processor included in the speaker unit based on the second sound signal; and sending the generated video signal to a display coupled to the processor(see figs. 1-3 and see col. 13 line 41-col. 14 line 32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the teaching of Emoto into Al-Ai could have generated a video signal based on the sound signal as claimed to provide the acoustic characteristic correction device could have been more convenient for the user to adjust the audio output signal.

Al-Ai as modified by Emoto teaches generating a video signal by the processor included in the subwoofer speaker unit based on the second sound signal; and sending the generated video signal to a display coupled to the processor, wherein the at least one subwoofer speaker is only included in the subwoofer speaker unit (see fig.1 and col. 3 line 29-col. 4 line 67 and col. 6 line 27-col. 7 line 57).

Consider claims 40 and 42 Al-Ai as modified by Emoto teaches generating a test sound signal by the processor; and sending the generated test sound signal to a sound system coupled to the processor (Emoto, see figs 1A-5A and 11 and see col13 line 42-col. 14 line 67); and presenting the generated video signal on the display, wherein the presented video signal includes a graphical user interface, the graphical user interface includes a frequency response graph of the sound signal received by the microphone(Emoto, see figs 1A-5A and 11 and see col. 13 line 42-col. 14 line 67).

Consider claim 41 Al-Ai teaches generating an output test sound signal at the sound system based on the received test sound signal; and sending the generated output test sound signal to one or more speakers coupled to the sound system and to the at least one subwoofer speaker of the subwoofer speaker unit via the processor (see fig.1 and col. 18 line 35-40).

Consider claims 43 and 44 Al-Ai as modified by Emoto teaches the method wherein the graphical user interface further includes an eight band parametric equalizer limited to subwoofer frequency bands(Emoto,see fig.3 (+10 to –10) and see col. 13 line 41-col. 14 line 32); and wherein the graphical user interface further includes a parameters section configured to allow a user to set at least a portion of the plurality of parameters using a control device(Emoto, see fig.3 and see col. 13 line 41-col. 14 line 32); and

Consider claim 45 Al-Ai teaches the portion of the plurality of parameters includes two or more of low pass crossover frequency, low pass crossover slope, subsonic frequency, subsonic slope, phase, and polarity (see col.7 line 59-col. 8 line 67).

Consider claim 73 Al-Ai as modified by Emoto teaches the apparatus wherein the subwoofer speaker housing further comprises the port configured to receive the generated video signal from the processor inherently (see fig. 1 and the discussion above claim 1); but Al-Ai as modified by Emoto does not clearly teach a port mounted on an exterior of the housing, the port configured to receive the generated video signal from the processor.

However, a video port mounted on an exterior of the housing is well known in art (the examiner is taking a official notice).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the loudspeaker system taught by Al-Ai as modified by Emoto could have a video port mounted on an exterior of the housing as claimed to provided easily video connection to the user.

5. Claims 6-8 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Al-Ali et al (US PAT. 6,584,204) as modified by Emoto et al (US PAT. 5,572,443) as applied to claims 1, 4 and 16 above and further in view of Ouchi (US PAT. 6,072,879).

Consider claim 6 Al-Ai as modified by Emoto do not explicitly teach the apparatus further comprising a wireless remote control configured to allow user manipulation of the parameters.

However, Ouchi teaches the apparatus further comprising a wireless remote control configured to allow user manipulation of the parameters (see fig. 17 and col. 13 line 50-col. 14 line 24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ouchi into the teaching of Al-Ali and Emoto so that the acoustic characteristic correction device could have been more convenient for the user.

Consider 7-8, Al-Ai as modified by Emoto and Ouchi teaches the apparatus, wherein the housing further comprises a wireless communication component coupled to the processor, wherein the wireless communication component is configured to receive signals from the wireless remote control that allows a user to manipulate at least one of the parameters (Ouchi, see fig. 17 and col. 9 line 15-col. 10 line 67); and wherein the wireless communication component is includes an optical sensor (Ouchi, see fig.17).

Claims 27 -28, they are essentially similar to claims 7-8 and are rejected for the reason stated above apropos to claims 7-8.

Consider claim 29 Ouchi teaches that the wireless remote control (see fig.1 (150)) includes one or more preset buttons (A-D) configured to send a preset command signal to the processor, wherein the processor processes sound signals according to parameters set in accordance with the received preset command signal (see col.9 line 15-col. 10 line 67 and discussion above claim 16).

Response to Arguments

6. Applicant's arguments with respect to claims1, 4, 6-11, 13-22, 24-29, 39-45 and 73 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Carver (US PAT. 6,566,960) is recited to show how other related ADJUSTABLE SPEAKER SYSTEMS AND METHOD.

8. Any response to this action should be mailed to:

Mail Stop ____(explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:
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Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501 The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See
/Lun-See Lao/
Examiner, Art Unit 2615
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 08-22-2008

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2615